

The amendments made by applicant should reasonably have been expected to be claimed by the Examiner, since they further define features which are clearly shown in the drawings. Additionally, claims 2-7, 9-14 and 16-20 were not amended in the present application, but have now been rejected over previously uncited new art. The MPEP § 706.07 (a) states:

"Furthermore, a second or any subsequent action on the merits in any application or patent undergoing reexamination proceedings will not be made final if it includes a rejection, on newly cited art, other than information submitted in an information disclosure statement filed under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p), of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art.

A second or any subsequent action on the merits in any application or patent involved in reexamination proceedings should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed. See MPEP § 904 et seq. For example, one would reasonably expect that a rejection under 35 U.S.C. § 112 for the reason of incompleteness would be replied to by an amendment supplying the omitted element". (emphasis added)

It is respectfully submitted that in the present application claims have been rejected which were not amended by the applicant, namely dependant claims, over new art of record, which includes several newly cited patents. Finality of rejection of claims 2-7, 9-14 and 16-20 is improper.

The changes to the claims include limitations related to a radially split housing and impeller cover which forms a blade system open between impeller blades at the radial end. Amendments were made also relating to the further definition of flow chambers.

It is respectfully submitted that the entire set of drawings in the application, along with the dependent claims, show that these limitations should reasonably have and expected to be claimed in accordance with MPEP § 706.07(a) and, therefore, a final

rejection in the present application is not proper. Applicant respectfully requests reconsideration of the Examiner's rejection herein over the newly previously uncited art and withdrawal of the finality of the action.

Rejection under 35 U.S.C. Section 102 (b) and 103(a)

The claims in the subject application recite a continuous taper along the length of the channel from the inlet port to the exit port. The references fail to disclose or teach this feature. The Examiner states this is an "obvious choice of mechanical design". However, if it would be obvious, certainly it would be shown or suggested in the art of record. The specification on Pages 22 and 23, and Figures 22 and 23 curve graph line 210 and 216 show dramatic benefits in both air flow and efficiency which were not anticipated by the inventors and, therefore, are unobvious. If these features were readily known, why doesn't every pump include them? It is respectfully submitted that these unexpected results demonstrate that the invention was not obvious.

With respect to the 102 and 103 rejections, the Patent No. 724800 USSR discloses a movable plate 3 which appears to adjust the entire channel through which the impeller rotates. However, this channel does not appear to have a tapered dimension. In the perspective view, the entire chamber is dimensionally the same over its length. Therefore, it is not a proper 102 rejection of claim 1, wherein the chamber tapers along substantial all of its length inlet and fluid outlet. Additionally, this reference does not disclose or teach any method of tapering of the outlet which would render the present invention obvious.

The '319 patent to Liskow discloses a fuel pump which includes trapezoidal passages. It is respectfully submitted that there is no disclosure of continually tapering the passages along the length thereof. In contradistinction to the present invention, the

'319 Liskow patent actually teaches away from a continuous inward taper. In Column 4, Lines 15-30, in fact, the cross-section of the front supply passage increases, but then remains substantially constant up to the pressure opening 30.

Additionally, the patent states that the cross-section in the rear supply passage 40 in the peripheral region of the suction opening 42, or in other words the in-flow region, is greater than the remaining peripheral region and reduces usually in the rotary direction after the suction opening 42, and then remains substantially constant up to the pressure opening.

Additionally, on line 12, the patent states that it is also possible to substantially reduce the cross section of the supply passage toward the suction opening, thus teaching the opposite of the present invention. A continuously tapering flow path is not shown or rendered obvious by the '319 patent.

With respect to the '412 patent to Beare, there is no disclosure of a continuously tapering channel. The section is taken between the inlet/outlets 36 and 37, and a second section is taken at a securement point referring to Figure 1. While the channel 34 appears to be wider on one end than the other end, it appears that there is no evidence that this is on a continuous taper since this section 2-2 is taken between the inlet and the outlet. This is a pass through "clearance" zone for the impeller, it is not representative of the pump channel. Specifically, the patent teaches that reversal of the pump will cause the fluid to reverse its directional flow through the ducts 36 and 37 (see Column 3, Lines 1-4). Therefore, it is submitted that the interior channel 34 is the same dimension between the inlet 37 and the outlet 36 to provide this stated reversal of flow characteristic. Therefore, it is respectfully submitted that this reference does not teach each and every feature of the claims and, therefore, the 35 U.S.C. Section 102 rejection must fail. Nor does it add any teaching which would render the continuous taper feature

obvious in the claimed invention. The invention was not "obvious" to one skilled in the art at the time it was made. The unexpected results in both airflow and efficiency demonstrate the non-obviousness of the present invention.

Conclusion

The Examiner is respectfully requested to reconsider his rejection and withdraw the finality of same. Additionally, it is believed that the references, whether taken alone or in combination, do not teach or suggest the invention as claimed. Allowance of the application is respectfully requested.

If the Examiner has any recommendations which would further accelerate prosecution of the present application, he is urged to call the undersigned at (248) 364-4300.

Respectfully submitted,

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Dated: May 4, 2001

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Enclosures